"Delivery Box"

This invention relates to a delivery box for goods including groceries ordered by Internet, mail or otherwise; for mail; and for other articles.

The object of the invention is to enable articles to be delivered at any time of day or night to a building whether occupied or not, and to be kept safely until retrieved by the occupier.

The invention comprises a delivery box adapted to be secured to a fixed support and having an outer door which is openable to enable deliveries to be placed inside the box but which locks automatically when it is then closed.

Preferably, the support is a wall of a building.

The box may be bolted internally to the exterior surface of the wall.

Alternatively, the box is built into the wall. The built-in box may have a rear door openable directly into, and lockable from, the interior of the building.

The outer door of the built-in box is preferably substantially flush with the exterior surface of the wall.

The outer door may have a letter deposit flap.

The flap may open into a receptacle mounted on the back of said door.

The outer door may have a bank-type deposit drawer.

The box is preferably adapted to be supplied with mains electricity.

The box may be a chilled storage compartment.

The box may include a frozen storage compartment.

The outer door may have a digital computerised locking system operable by pre-arranged single-use code numbers.

The box may be adapted to be connected to an existing alarm system.

The box may have an external child-resistant grille with an opening catch at a high level.

The invention will now be described in greater detail, by way of example only, with reference to the accompanying diagrammatic drawings, of which:-

Figure 1 is a front elevation of one form of a large delivery box particularly suitable for accepting deliveries of articles of food;

Figure 2 is a sectional side elevation of said one form of large box built into an external wall of the house;

Figure 3 is a front elevation of one form of smaller delivery box;

Figure 3a is a sectional side elevation of said one form of smaller box built into an external wall of the house;

Figure 4 is a front elevation of another form of smaller delivery box;

Figure 4a is a sectional side elevation of said other form of smaller box built into an external wall of the house;

Figure 5 is a front elevation of another form of large delivery box; and

Figure 5a is a sectional side elevation of said other form of large box secured to an external wall of the house.

Referring now to Figures 1 and 2 of the drawings, a large delivery box indicated generally at 10 is made of metal and/or strong plastics material and is shown built into an external masonry wall indicated generally at 12 of a house. The wall conventionally comprises an outer leaf 14 and an inner leaf 16 separated by a cavity 18. The box 10 is securely fixed in the wall 12 by means of projections (not shown) which are concreted into seams in the masonry, and has an outer door 20 with a handle 22 and hinges 24 which is practically flush with the exterior surface 26 of the wall 12. The box 10 projects a short distance into the interior of the house in order to have a useful front-to-back dimension, and has a rear door 28 with a handle 34 openable directly into, and lockable from, said interior to facilitate the removal of deliveries. The box 10 is adapted to be supplied with mains electricity from within the house, to enable it to include both a chilled storage compartment 30 and a frozen storage compartment 32, and also lighting (not shown) if desired. The outer door 20 is openable to enable deliveries to be placed inside the box, but is arranged to lock automatically when it is then closed. This is effectively achieved by employing a digital computerised locking system (not shown) operable by pre-arranged code numbers. Said system can be button- or card-operated in such a way that the door 20 is opened by a

pre-arranged single-use code number which is erased from the system's memory when said door is closed and self-locked. The box 10 is adapted to be connected to a burglar alarm system (not shown) existing within the house. A typical size for a large box 10 suitable for accepting, inter alia, deliveries of food from a supermarket is, say, 1200 millimetres in internal height by 600 millimetres in internal width and depth, but a height of more than two metres is preferably avoided as this would require planning permission. It will be understood that the delivery box 10 just described is a de luxe or top of the range unit. Many of its features can be omitted without departing from the scope of the invention, and a less sophisticated locking system for the outer door 20 such as a high-security Yale-type lock can be employed, in which case said door is left unlocked until a delivery has been made. The external child-resistant grille (not shown) with an opening catch disposed at a high level so as to be difficult for a child to reach then becomes a desirable adjunct to the box 10.

Referring now to Figures 3 and 3a of the drawings, a smaller delivery box indicated generally at 40 which is still large enough to accept supermarket and mail order deliveries is built into an external masonry wall 41 of a house. The box 40 has only an outer door 42 with a handle 44 and hinges 46, which is openable to enable deliveries to be placed inside said box but which locks automatically when it is closed. The locking system employed can be

either of the digital computerised type or of the high-security Yale-type hereinbefore referred to, and an external grille as described in the preceding paragraph can be fitted if desired. The door 42 of the box 40 is fitted with a large letter deposit flap 48 which conveniently opens into a receptacle 49 mounted on the back of said door.

Figures 4 and 4a of the drawings show a delivery box indicated generally at 50 which is in most respects similar to the box 40 shown in Figure 3 but which has fitted in its outer and only door 52, instead of a letter deposit flap, a bank-type deposit drawer 54.

A typical size for the boxes 40 and 50 is, say, 900 millimetres in internal height by 600 millimetres in internal width and depth.

Figures 5 and 5a of the drawings show a large delivery box having an outer and only door 62 with a handle 64 and hinges 65 which is secured to the external surface of an exterior wall 66 of a house and to a concrete path 68 adjoining said wall by means of internal and thus inaccessible masonry bolts 70. A typical size for the box 60 is, say, 1500 millimetres in height by 600 millimetres in internal width and depth. The door 62 is openable to enable deliveries to be placed inside said box but locks automatically when it is closed, the locking system being either of the digital computerised type or of the high-security Yale-type hereinbefore referred to.

In a modification, the box can be secured to other fixed supports such as a concrete base or a post.

Thus there are provided secure delivery boxes which save time and money by avoiding any need for redelivery.